Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A fuel cell power plant comprising:

a fuel cell stack comprising an anode chamber and a cathode chamber, the fuel cell stack generating power by a reaction of hydrogen supplied to the anode chamber and air supplied to the cathode chamber;

a membrane hydrogen separator having a pre-separation side facing a reformate gas and a post-separation side, the membrane hydrogen separator allows hydrogen in the reformate gas to permeate from the pre-separation side to the post-separation side;

a hydrogen supply passage which supplies hydrogen at the post-separation side of the membrane hydrogen separator to the anode chamber;

an anode effluent recirculation passage which recirculates anode effluent discharged from the anode chamber to the post-separation side of the membrane hydrogen separator;

an intake valve which introduces ~~a gas other than hydrogen to one of the anode effluent recirculation passage and the hydrogen supply passage~~ part of the air supplied to the cathode chamber to the anode effluent recirculation passage; and

a discharge valve which discharges gas from the anode effluent recirculation passage.

2-4. (Cancelled)

5. (Original) The fuel cell power plant as defined in Claim 1, wherein the fuel cell power plant further comprises a sensor which detects a hydrogen partial pressure on the post-separation side of the membrane hydrogen separator, and a controller functioning to open the intake valve while closing the discharge valve when the hydrogen partial pressure is higher than a predetermined pressure, and open the discharge valve while closing the intake valve when the hydrogen partial pressure is lower than the predetermined pressure.

6. (Currently Amended) The fuel cell power plant as defined in Claim 5, wherein the ~~fuel cell power plant comprises~~ the sensor comprises a sensor which detects a hydrogen concentration on the post-separation side of the membrane hydrogen separator and a sensor which detects an absolute pressure on the post-separation side of the membrane hydrogen

separator, and the controller ~~is~~ further ~~functioning~~ functions to calculate the hydrogen partial pressure on the post-separation side of the membrane hydrogen separator by multiplying the hydrogen concentration by the absolute pressure.

7. (Currently Amended) The fuel cell power plant as defined in Claim ~~2~~ 1, wherein the fuel cell power plant further comprises a sensor which detects an absolute pressure on the post-separation side of the membrane hydrogen separator and a sensor which detects a gas concentration of any of nitrogen, carbon monoxide and carbon dioxide in the anode effluent recirculation passage, and a controller functioning to calculate a hydrogen partial pressure on the post-separation side of the membrane hydrogen separator based on the gas concentration, a composition of air, and the absolute pressure, open the intake valve while closing the discharge valve when the hydrogen partial pressure is higher than a predetermined pressure region, and open the discharge valve while closing the intake valve when the hydrogen partial pressure is lower than the predetermined pressure region.

8. (Currently Amended) The fuel cell power plant as defined in Claim 7, wherein the fuel cell power plant further comprises a mechanism which supplies the reformate gas to the pre-separation side of the membrane hydrogen separator and a sensor which detects a hydrogen partial pressure on the pre-separation side of the membrane hydrogen separator, and the controller ~~is~~ further ~~functioning~~ functions to close the discharge valve and the intake valve when the hydrogen partial pressure on the post-separation side of the membrane hydrogen separator is in the predetermined pressure region, calculates a hydrogen permeation amount through the membrane hydrogen separator from the hydrogen partial pressure on the post-separation side and the hydrogen partial pressure on the pre-separation side, and control the reformate gas supply mechanism to increase the reformate gas when the hydrogen permeation amount is smaller than a predetermined amount.

9. (New) A fuel cell power plant comprising:

a fuel cell stack comprising an anode chamber and a cathode chamber, the fuel cell stack generating power by a reaction of hydrogen supplied to the anode chamber and air supplied to the cathode chamber;

a membrane hydrogen separator having a pre-separation side facing a reformate gas and a post-separation side, the membrane hydrogen separator allows hydrogen in the reformate gas to permeate from the pre-separation side to the post-separation side;

a hydrogen supply passage which supplies hydrogen at the post-separation side of the membrane hydrogen separator to the anode chamber;

an anode effluent recirculation passage which recirculates anode effluent discharged from the anode chamber to the post-separation side of the membrane hydrogen separator;

a combustor which combusts the reformate gas;

an intake valve which introduces combusted gas from the combustor into the hydrogen supply passage; and

a discharge valve which discharges gas from the anode effluent recirculation passage.

10. (New) The fuel cell power plant as defined in Claim 9, wherein the fuel cell power plant further comprises a sensor which detects a hydrogen partial pressure on the post-separation side of the membrane hydrogen separator, and a controller functioning to open the intake valve while closing the discharge valve when the hydrogen partial pressure is higher than a predetermined pressure, and open the discharge valve while closing the intake valve when the hydrogen partial pressure is lower than the predetermined pressure.

11. (New) The fuel cell power plant as defined in Claim 10, wherein the sensor comprises a sensor which detects a hydrogen concentration on the post-separation side of the membrane hydrogen separator and a sensor which detects an absolute pressure on the post-separation side of the membrane hydrogen separator, and the controller is further functioning to calculate the hydrogen partial pressure on the post-separation side of the membrane hydrogen separator by multiplying the hydrogen concentration by the absolute pressure.

12. (New) A fuel cell power plant comprising:

a fuel cell stack comprising an anode chamber and a cathode chamber, the fuel cell stack generating power by a reaction of hydrogen supplied to the anode chamber and air supplied to the cathode chamber;

a membrane hydrogen separator having a pre-separation side facing a reformate gas and a post-separation side, the membrane hydrogen separator allows hydrogen in the reformate gas to permeate from the pre-separation side to the post-separation side;

a hydrogen supply passage which supplies hydrogen at the post-separation side of the membrane hydrogen separator to the anode chamber;

an anode effluent recirculation passage which recirculates anode effluent discharged from the anode chamber to the post-separation side of the membrane hydrogen separator;

an intake valve which introduces part of a cathode effluent discharged from the cathode chamber to the anode effluent recirculation passage; and

a discharge valve which discharges gas from the anode effluent recirculation passage.

13. (New) The fuel cell power plant as defined in Claim 12, wherein the fuel cell power plant further comprises a sensor which detects a hydrogen partial pressure on the post-separation side of the membrane hydrogen separator, and a controller functioning to open the intake valve while closing the discharge valve when the hydrogen partial pressure is higher than a predetermined pressure, and open the discharge valve while closing the intake valve when the hydrogen partial pressure is lower than the predetermined pressure.

14. (New) The fuel cell power plant as defined in Claim 13, wherein the sensor comprises a sensor which detects a hydrogen concentration on the post-separation side of the membrane hydrogen separator and a sensor which detects an absolute pressure on the post-separation side of the membrane hydrogen separator, and the controller further functions to calculate the hydrogen partial pressure on the post-separation side of the membrane hydrogen separator by multiplying the hydrogen concentration by the absolute pressure.